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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/662,253	09/14/2000	Thomas P. Szumla	80708N-R	1048

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EXAMINER

NGUYEN, MADELEINE ANH VINH

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 10/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/662,253

Applicant(s)

SZUMLA ET AL.

Examiner

Madeleine AV Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 13 and 23-28 is/are rejected.
- 7) ☒ Claim(s) 12 and 14-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

This communication is responsive to amendment file on August 08, 2005.

Applicant amends claims 1, 23, and 24.

Claim Objections

1. Claim 28 is objected to because of the following informalities: (c) before a first processor system and (d) before a second processor should be (a) and (b). Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogata (US Patent No. 5,412,488).

Concerning claim 1, Ogata discloses an image processor (Fig.1) generating image output for a printer (114) from image data received from an image source (115) comprising a first processor system (101-103) for communicating control data with an image source (115) via a first bus (1a); a second processor system (106-111) in circuit communication with the first processor system (101-103) and characterized having a second bus (1b) for communication with

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the same image source (115) that is separate and distinct from the first bus (1a), the second processor system receiving image data from the image source (115) via the second bus (1b), the second processor system further characterized by performing a majority of the image processing performed within the image processor responsive to control by the first processor system (101-103), (Fig.2; Abstract; col. 4, line 15 – col. 5, line 26; col. 5, line 59 – col. 6, line 65; col. 7, lines 55-67; col. 8, lines 51-68; col. 9, lines 38-62).

Ogata does not directly teach that the first processor system is characterized by providing high-level control of the image processing performed within the image processor. However, Ogata teaches that “CPU 101 for performing general control over the entire apparatus” (col. 4, lines 17-18), and “By performing such transfer processes while effecting unit conversion to 8Kbytes unit, the transfer of all the data designated by the CPU is effected. The amount for data of which the CPU 101 issues a transfer instruction is rather larger than 8 Kbytes.” (col. 7, lines 58-60). In addition, Ogata teaches “the CPU 101 is capable of directly supervising the DMAC operation without any intermediation of the second bus” (col. 8, lines 51-53) and “the CPU can give a request for data transfer through the second bus unitarily without any intermediation of the second bus, thus making it possible to construct an apparatus for performing high-speed image processing with a single CPU.” (col. 9, lines 51-55). Thus, the CPU 101 in the first processing system is characterized by providing high-level control of the image processing performed in the image processor as claimed. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to consider the first processor system in Ogata with the high speed control characteristic is equivalent to the high-level control of the image processing

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since the system can be performed using a single CPU in dual-bus data processing at high speed by efficiently using a plurality of buses, and thus reduced CPU and memory requirements.

Concerning claims 2-3, Ogata further teaches that the first processor system receives/transmits control data from/to the image source via the first bus (1a) (claims 2-3), (col. 4, lines 16-18; col. 8, lines 51-53; col. 9, line 38-41).

Claim 23 is method claim of apparatus claim 1. Claim 23 is rejected for the same rationales set forth for claim 1.

Concerning claims 24, 25, and 28, Ogata discloses an image processor as discussed in claim 1 above. Ogata further teaches that the first bus is a print control bus providing a printer control and status path for communication with image source according to a first bus protocol, the second processor system for communicating with the same image source according to a second bus protocol that is different than the first bus protocol (col. 4, lines 15-26; col. 4, line 63 – col. 5, line 2).

Concerning claim 26, Ogata further teaches that the control/status data path is separate from both the printer control and status path and the printer image data path (claim 26), (col. 4, lines 15-26; col. 4, line 63 – col. 5, line 26; col. 5, line 59 – col. 6, line 9); the image data bus provides a greater speed of transfer than the print control bus (claim 27), (col. 4, lines 34-40).

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogata as applied to claim 1 above, and further in view of Hirota (US Patent No. 4,644,372).

Concerning claim 13, Ogata fails to teach that the printer 114 is an ink jet printer with at least one ink jet heads. However, it was commonly known in the art that the printer 114 in Ogata

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is a conventional ink jet printer since ink jet printer is well known in the prior art to print an image received from an image source and reproduced it by an ink jet printer. Hirota teaches an ink-jet printing system (Figs. 1a-1b) using a charge controlled ink jet head and connecting to a host unit (HTC) (Abstract). The system comprises a data transfer controller 91 and a print controller 102. The data transfer controller 91 comprises a microprocessor (CPU 92), input/output units 93-96, a host interface 97, and a plurality of buses including an address bus, a data bus and a control bus. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine the above teaching of Hirata to consider the printer 114 in Ogata as an ink-jet printer since Ogata does not limit the printer 114 to any specific printer while the system has separate plurality of buses of different purposes such as address bus, data bus and control bus.

Allowable Subject Matter

5. Claims 4-12, 14-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:
The following is an Examiner's Statement of Reasons for Allowance: Claims 4-12, 14-22 are objected over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of the said prior art which teaches an image processor generating image output for a printer from image data received from an image source as claimed in claims 1 and 24 wherein the second processor

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comprises a raster image processor (RIP) in circuit communication with a plurality of color plane processors and the RIP processor is characterized by performing separation of the image data into color plane data for each of the plurality of color planes.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Cyman et al (US Patent No. 6,236,463) discloses a system capable of generating high-speed variable information printed multiple page documents.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

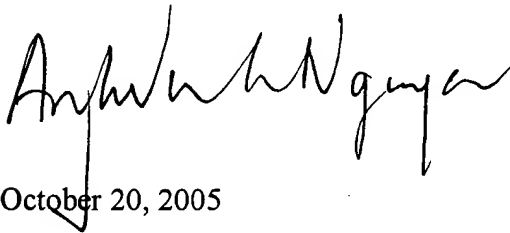
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 571 272-7466. The examiner can normally be reached on Monday, Tuesday, Thursday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on 571 272-7471. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Madeleine AV Nguyen
Primary Examiner
Art Unit 2626

October 20, 2005